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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,861	12/16/2003	Christopher Hsu	LEE2 00302	5353
27885	7590	04/28/2005	EXAMINER	
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			KIM, SANG K	
			ART UNIT	PAPER NUMBER

3654

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/736,861		HSU ET AL.	
	Examiner		Art Unit	
	SANG KIM		3654	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 17-22, 42-48, 50, 52, 55 and 56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15, 17-36, 40, 49, 51, 53, 54 and 57-63 is/are rejected.
- 7) ☒ Claim(s) 11-14, 16, 37-39 and 41 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/16/03, 3/14/05</u> . | 6) <input type="checkbox"/> Other: ____. |

Election/Restrictions

Claims 17-22, 42-48, 50, 52, 55 and 56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/14/05.

Applicant's election without traverse of species I (claims 1-18, 23-41, 49, 51, 53-54 and 57-63) in the reply filed on 3/14/05 is acknowledged.

Claim Objections

Claims 1-18, 23-41, 49, 51, 53-54 and 57-63 are objected to because of the following informalities:

In claims 1, 29 and 63, the phrase "a first and second end" should be --first and second ends--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4, 6, 10, 12, 13-16, 18, 21, 22, 24, 29-41, 49, 51, 53-54 and 57-63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3654

Claim 2 is indefinite and vague. How can the weight profile of said tube be about equal to an upward force applied to said tube as the welding wire being paid out of the container passes into and through said passageway of said tube? The force is determined by mass and acceleration, (i.e. $F=ma$). Changes in the rate of pulling and mass of the wire would cause the force to change, thus the weight profile of said tube would not be equal to an upward force.

Claims 3 and 30 recite the limitation "said weight distribution" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether the "weight distribution" is the same as the "weight profile" set forth in the claim 2, line 1.

Claim 7 is indefinite and vague. It is unclear how claim 7 further limits the scope of the claim from which it depends, since claim 5 is reciting the same feature.

Claims 29 and 62 are indefinite and vague. Which element is applicant referring to as "a lower partition"? Is "a lower partition" referring to "a retainer ring"? If so, Applicant is advised to keep the terminology consistent throughout the claims.

The term "low friction" in claims 14-16 and 39-41, is a relative term which renders the claims indefinite. The term "low friction" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. As best understood, the term "low friction" is equivalent to a smooth surface.

Claim Rejections - 35 USC § 102

Art Unit: 3654

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wright et al., U.S. Patent No. 3815844.

With respect to claim 1, Wright '844 shows a floating liner (56) comprising a tube (56, i.e. a sleeve) having first and second ends (left and right sides) and a passageway extending between the two ends, said first end and said passageway adapted to receive a welding wire (40), said tube (56) having a weight profile (since any object has a weight) that causes said first end to at least partially float at least closely adjacent to a top surface of a layer of welding wire for at least a portion of a time [when] the welding wire is paid out of the container (42), see the drawing.

The term “liner” used in the claim preamble does not patentably distinguish over the prior art, because it does not impart or define any particular structural limitations of the apparatus.

With respect to claim 2, in so far as the claim is understood, Wright '844 teaches the weight profile of the tube (56) is about equal to an upward force applied to said tube as the welding wire is paid out of the container. The welding wire is paid out by a motor which can rotate the platform in a constant rotation; therefore, the upward force remains constant since the mass and the acceleration remain constant.

Art Unit: 3654

With respect to claim 15, Wright '844 shows the passageway of said tube with a low friction surface (i.e. a smooth surface).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 15, 23-34, 40, 49, 51, 53-54 and 57-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lingle, U.S. Patent No. 3061235, in view of the prior art, as shown in figure 1.

With respect to claims 1, 29, 51 and 53-54, Lingle '235 shows a floating liner (24) comprising a tube (24) having first and second ends (left and right sides) and a passageway extending between the two ends, said first end and said passageway adapted to receive a steel strapping (18), said tube (24) having a weight profile (since any object has a weight) that causes said first end to at least partially float at least closely adjacent to a top surface of a layer of steel strapping for at least a portion of a time [when] the steel strapping is paid out, see figures 1-3.

Lingle '235 discloses the claimed invention except for a lower partition with an upper opening and unwinding a welding wire.

The prior art shows a lower partition (40) with an upper opening (44) and a welding wire, see figure 1.

Art Unit: 3654

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lingle '235 by adding a lower partition with an upper opening to unwind a welding wire as taught by the prior art since a lower partition retains the wire during transport, but also prevents the wire from entanglement during unwinding.

With respect to claims 62-63, the method described in these claims would inherently result from the use of invention of Wright '844 in view of the prior art as advanced above.

With respect to claims 2 and 30, as advanced above, Lingle '235 inherently teaches the weight profile of the tube (24) is about equal to an upward force applied to said tube as the welding wire is paid out of the container. As long as the dispensing material is force is constant to the weight of the tube.

With respect to claims 3-4 and 31-32, as advanced above, Lingle '235 shows the tube has the greatest weight at the first end of said tube because of the removable fitting (27), see figure 1.

With respect to claims 5-8 and 33-34, as advanced above, Lingle '235 shows the tube weight distribution is adjustable by simply removing the removable fitting (27) which changes the weight distribution of the tube.

With respect to claims 15 and 40, as advanced above, Lingle '235 shows the passageway of said tube with a low friction surface (i.e. a smooth surface).

Art Unit: 3654

With respect to claims 23-26 and 57-60, as advanced above, Lingle '235 shows the passageway of the tube has an inner diameter that is at least twice the diameter of the dispensing material passing through the passageway, see figure 3.

With respect to claims 27-28 and 49, as advanced above, Lingle '235 shows a lower portion of said tube (24) that includes the first end has a generally helical shape, see figure 1.

With respect to claim 61, as advanced above, Lingle '235 shows the tube formed from a material of spring shaped steel, see figure 1.

Claims 9-10 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lingle in view of the prior art as applied to claim 1 above, and further in view of Boulton, U.S. Patent No. 5971308.

Lingle '235 does not show a flexible tube.

Boulton '308 shows a conduit (i.e. a tube 40) which is at least partially flexible, see figure 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lingle '235 by making the tube flexible as taught by Boulton '308 because a flexible tube would be more compliant when engaged by the wire, thereby reducing wear on both the wire and the tube.

Claims 23-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al., U.S. Patent No. 3815844, in view of Lingle, U.S. Patent No. 3061235.

With respect to claims 23-24, Wright '844 does not explain the size of the inner diameter of the tube.

Lingle '235 shows the tube (24) with a diameter significantly larger than the diameter of the wire, thereby teaching that it be at least twice the diameter thereof.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tube (56) of Wright to have a diameter at least twice the wire diameter, to reduce the friction and chance of jamming in the tube.

Claims 29-30, 40, 51, 53-54 and 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al., U.S. Patent No. 3815844, in view of the prior art, as shown in figure 1.

With respect to claims 29, 51, 53-54, Wright '844 shows a container of a welding wire (42) comprising an outer wall with a generally uniform cross-sectional shape; a floating liner (56) comprising a tube (56, i.e. a sleeve) having first and second ends (left and right sides) and a passageway extending between the two ends, said first end and said passageway adapted to receive a welding wire (40), said tube (56) having a weight profile (since any object has a weight) that causes said first end to at least partially float at least closely adjacent to a top surface of a layer of welding wire for at least a portion of a time [when] the welding wire is paid out of the container (42), see the drawing.

Wright '844 discloses the claimed invention except for a lower partition with an upper opening.

Art Unit: 3654

The prior art shows a lower partition (40) with an upper opening (44), see figure 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wright '844 by adding a lower partition with an upper opening as taught by the prior art since a lower partition retains the wire during transport, but also prevents the wire from entanglement during unwinding.

With respect to claims 62-63, the method described in these claims would inherently result from the use of invention of Wright '844 in view of the prior art as advanced above.

With respect to claim 30, as advanced above, in so far as the claim is understood, Wright '844 teaches the weight profile of the tube (56) is about equal to an upward force applied to said tube as the welding wire is paid out of the container. The welding wire is paid out by a motor which can rotate the platform in a constant rotation; therefore, the upward force remains constant since the mass and the acceleration remain constant.

With respect to claim 40, as advance above, Wright '844 shows the passageway of said tube with a low friction surface (i.e. a smooth surface).

Claims 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al., in view of the prior art as applied to claim 29 above, and further in view of Lingle, U.S. Patent No. 3061235.

Art Unit: 3654

With respect to claims 57-60, as advanced above, Wright '844 does not explain the size of the inner diameter of the tube

Lingle '235 shows the tube (24) with a diameter significantly larger than the diameter of the wire, thereby teaching that it be at least twice the diameter thereof.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tube (56) of Wright in view of the prior art to have a diameter at least twice the wire diameter, to reduce the friction and chance of jamming in the tube.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al., in view of the prior art as applied to claim 29 above, and further in view of Boulton, U.S. Patent No. 5971308.

Wright '844 does not explain if the tube is flexible or not.

Boulton '308 shows a conduit (i.e. a tube 40) which is at least partially flexible, see figure 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wright '844 in view of the prior art by making the tube flexible as taught by Boulton '308 because a flexible tube would be more compliant when engaged by the wire, thereby reducing wear on both the wire and the tube.

Art Unit: 3654

Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al., in view of the prior art as applied to claim 29 above, and further in view of Priest, U.S. Patent No. 4274607.

As advanced above, Wright '844 does not disclose which material the tube is formed from.

Priest '607 explains the tube can made of a nonmetallic material, such as polypropylene or other suitable plastic material, see column 3, lines 30-35.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wright '844 by using a plastic polymer as taught by Pries '607 since plastic materials are often used to save cost in manufacturing parts.

Allowable Subject Matter

Claims 11-14, 16, 37-39 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG KIM whose telephone number is 571-272-6947.

Art Unit: 3654

The examiner can normally be reached Monday through Friday from 8:00 A.M. to 5:30 P.M. alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki, can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SK

4/21/05

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